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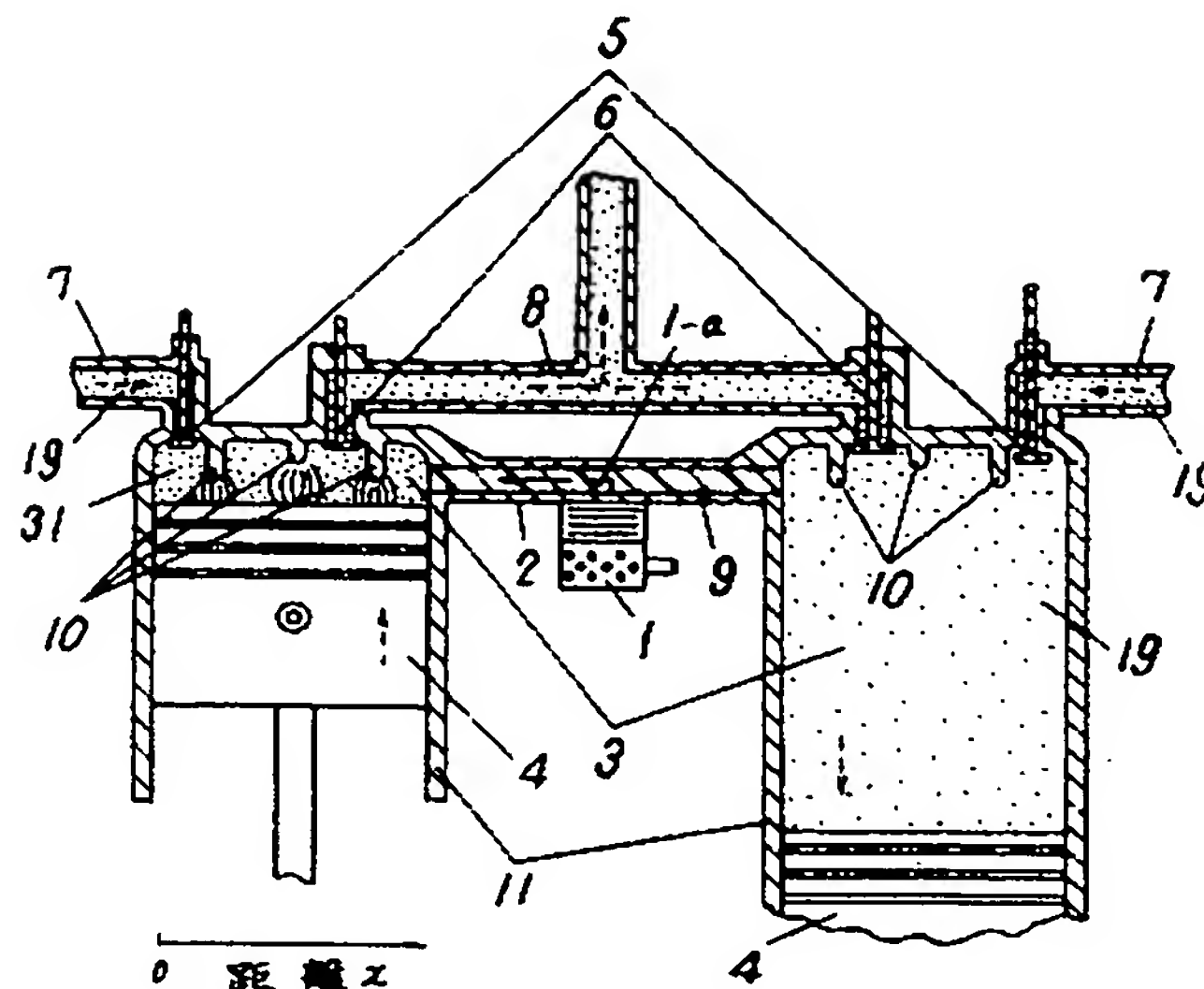
APPLICATION DATE : 03-07-78
APPLICATION NUMBER : 53081235

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : MORIYAMA MASARU;

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TITLE : INTERNAL COMBUSTOR



ABSTRACT : PURPOSE: To make fuel cost favorable as well as to improve combustion efficiency in such a way that sparks are made synchronous generation at several spots in the cylinder, which are made perfect combustion by fuel heating and ignition with use of microwaves.

CONSTITUTION: Microwaves discharged from magnetron 1 are transmitted through the inside of a dielectric 9 in a waveguide 2 into a cylinder 11, stationary waves are generated in cavities 3. Now, when a piston 4 has gone up, it comes near to bosses 10 formed inside the cylinder head, electric field concentration is generated between gaps formed by the piston 4 and air 10, upon arriving at electric field for starting up spark discharge, the spark discharge will generate between the piston 4 and the bosses 10. During the spark spurting, if the piston 4 is at compressed stroke, compressed mixed gas 19 is ignited and exploded, and if it is at exhaust stroke, exhaust is heated. If said bosses 10 are shorter at the middle and longer at both ends, synchronous spark spurting can be done at three places.

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